

At page 1, line 34, please delete " $\beta(2-1)$ " and substitute therefor -- $\beta(2-1)$ --.

At page 1, line 34, please delete " $\beta(2-6)$ " and substitute therefor -- $\beta(2-6)$ --.

At page 2, line 3, please insert --an-- between "as" and "energy".

At page 2, line 8, please delete "substitute" and insert therefor --substitutes--.

At page 2, lines 17 to 18, please delete "at the moment".

At page 2, line 21, please delete "the".

At page 2, line 27, please delete "(JP-80/40193)" and substitute therefore --(see Japanese Patent 80/40193)--.

At page 2, line 29, please delete "both".

At page 2, line 31, please insert --,-- after "7".

At page 2, line 36, please insert --,-- after "gram".

At page 3, line 6, please insert --,-- after "sweeteners".

At page 3, between lines 11 and 12, please insert the subheading --Summary of the Invention--.

At page 4, line 6, please insert --be-- between "to" and "added".

At page 4, line 7, please delete "in respect of" and substitute therefor --to--.

At page 4, line 9, please delete "deceases" and insert therefor --decreases--.

At page 4, line 10, please insert --present-- between "the" and "invention".

At page 4, line 10, please delete "therefore".

At page 4, line 11, please delete "the".

At page 4, between lines 18 and 19, please insert:

--Brief Description of Drawings

Figure 1 is a photograph illustrating the oligosaccharide-producing activity of wild type and modified forms of the Streptococcus mutans fructosyltransferase incubated with sucrose and analyzed on TLC.

Figure 2 is a photograph illustrating the results of TLC-analysis of transgenic tobacco plants which express the fructosyltransferase gene of Streptococcus mutans.

Figure 3 is a photograph illustrating the SDS-PAGE gel of purified SST from onion seed.

Figure 4 is a photograph illustrating the results of TLC-analysis of the reaction products of purified SST from onion seed incubated with sucrose.

Figure 5 is a graph of the protein elution profile (A280) and the fructosyltransferase activity of two isoforms of 6-SFT obtained from barley.

Figure 6 are chromatograms of 2 isoforms of 6-SFT obtained from barley.

Figure 7 is a graph of the enzymatic activity of a pool of fractions of 6-SFT after isoelectric focusing under non-denaturing conditions.

Figure 8 is a photograph illustrating the SDS-PAGE gel after two-dimensional analysis of pool II of Figure 6.

Figure 9 is a photograph illustrating the two-dimensional gel electrophoreses of the IEF-markers phycocyanin, beta-lactoglobulin, and bovine carbonic anhydrase.

Figure 10 is a schematic view of the strategy used to obtain the cDNA clone which codes for 6-SFT from barley.

Figure 11 is the cDNA-sequence (SEQ ID NO:1) and the amino acid sequence (SEQ ID NO:2) of 6-SFT derived from barley.

Figure 12 is the amino acid sequence of 6-SFT from barley compared to different invertases, levanases and levansucrases.

Figure 13 is a dendrogram of 6-SFT from barley with different invertases, levanases and levansucrases, based on derived immunoacid sequences.

Figure 14 is a graph illustrating the functional expression of barley 6-SFT in Nicotiana plumbaginifolia protoplasts.

Figure 15 is a graph illustrating the functional expression of barley 6-SFT in Nicotiana glauca protoplasts.

Figure 16 is a photograph illustrating a native IEF-GEL of a purified enzyme extract of FFT from Helianthus tuberosus L.

Figure 17 is an HPLC-diagram of tryptic digests of the FFT isoform T1.

Figure 18 is an HPLC-diagram of tryptic digests of the FFT isoform T2.

Detailed Description of the Invention --

At page 4, line 33, please insert --see International Application No.-- between "(" and "WO".

At page 5, line 1, please delete "It" and insert therefor --it--.

At page 5, line 2, please insert --weight-- between "high-molecular" and "fructans".

At page 5, line 11, please delete the first occurrence of ",".

At page 5, line 11, please insert --,-- after "to."

At page 5, line 11, please delete "," after "endospore-forming".

At page 5, lines 14 to 15, please insert --,-- after "Azotobacter").

At page 6, line 8, please delete the first occurrence of "the".

At page 7, line 36, please insert --,-- after "potato".

At page 7, line 36, please delete "or".

At page 8, line 1, please delete "himself".

At page 8, line 18, please delete "substitute" and insert therefor --substitutes--.

At page 8, line 20, please insert --such-- before "food".

At page 8, line 29, please delete "it" and insert therefor --the invention--.

At page 9, line 5, please insert --and-- between "pTD2;" and "lane".

At page 9, line 9, please insert --,-- after "lane A".

At page 9, line 10, please insert --,-- after "lane H".

At page 9, line 11, please insert --,-- after "figure".

At page 9, line 11, please insert --represents-- between "G" and "glucose".

At page 9, line 11, please insert --represents-- between "S" and "sucrose".

At page 9, line 12, please insert --represents-- between "N" and "neokestose".

At page 9, line 13, please insert --and-- between "trisaccharide)," and "K".

At page 9, line 14, please insert --molecular weight-- between "Higher" and "oligosaccharides".

At page 9, line 19, please delete "shows as control" and insert therefor --shows, as a control,--.

At page 9, line 23, please insert --,-- after "gel".

At page 9, line 29, please insert --shows-- between "2" and "the".

At page 9, line 30, please insert --and-- between "(H)," and "lane".

At page 9, lines 31 to 32, please insert --represents-- between "S" and "sucrose".

At page 9, line 32, please insert --represents-- between "N" and "neokestose".

At page 9, lines 32 to 33, please insert --and-- between "trisaccharide)," and "I".

At page 9, line 35, please delete "figure" and substitute therefor --Figure--.

At page 9, line 36, please delete "Figure 5 shows" and substitute therefor --Figures 5 and 6 show--.

At page 10, line 1, please delete "5A" and substitute therefor --5--.

At page 10, line 6, please delete "5B" and substitute therefor --6--.

At page 10, line 11, please insert --an-- between "as" and "internal".

At page 10, line 12, please delete "fig. 5A" and substitute therefor --Fig. 5--.

At page 10, line 14, please delete "fig. 5B" and substitute therefor --Fig. 6,--.

At page 10, line 16, please delete "c" between "and" and "with".

At page 10, line 18, please delete "6A" and substitute therefor --7--.

At page 10, line 20, please delete "figure 5" and substitute therefor --Figures 5 and 6--.

At page 10, line 20, please delete "focussing" and substitute therefor --focusing--.

At page 10, line 24, please delete "6B" and substitute therefor --8--.

At page 10, line 28, please delete "6C" and substitute therefor --9--.

At page 10, line 32, please delete "7" and substitute therefor --10--.

At page 10, line 34, please delete "8" and substitute therefor --11--.

At page 10, line 34, after "cDNA-sequence" insert --(SEQ ID NO:1)--

At page 10, line 35, after "quence" insert --(SEQ ID NO:2)--

At page 10, line 36, please delete "9" and substitute therefor --12--.

At page 11, line 5, please delete "." and substitute therefor --;--.

At page 12, line 10, please delete "10" and substitute therefor --13--.

At page 12, line 14, please delete "figure 9" and substitute therefor --Figure 12--.

At page 12, line 16, please delete "Figure 11 shows" and substitute therefor --Figures 14 and 15 show--.

At page 12, line 22, please delete "11A" and substitute therefor --14--.

At page 12, line 23, please delete "11B" and substitute therefor --15--.

At page 12, line 27, please delete "12" and substitute therefor --16--.

At page 12, line 30, please insert --,-- after "seen".

At page 12, line 31, please insert --,-- after "(pI 4.75)".

At page 12, line 34, please delete "13 and 14" and substitute therefor --17 and 18--.

At page 12, line 35, please delete "13" and substitute therefor --17--.

At page 12, line 35, please delete "14" and substitute therefor --18--.

At page 13, line 5, please delete "was" and substitute therefor --were--.

At page 13, line 15, please delete "figure" and substitute therefor --Figure--.

At page 13, line 21, please delete "(J. Bacteriol, 170, 810-816 (1988))" and substitute therefor --J. Bacteriol. 170, 810-816 (1988)--.

At page 13, line 23, please insert --,-- after "Kuramitsu."

At page 13, line 25, please insert --,-- after "(1983)".

At page 14, line 1, please insert --,-- after "mutans".

At page 14, line 10, please insert --,-- after "mutations)".

At page 14, line 14, please delete "a" between "for" and "changed".

At page 14, line 21, please insert --,-- after "Pollock".

At page 14, lines 27 to 28, please insert --,-- after "trisaccharides".

At page 14, line 31, please insert --,-- after "invention".

At page 15, line 6, please insert --,-- after "vector".

At page 15, line 10, please delete "al. (Bio/Technology 8, 217-221 (1990))" and substitute therefor --al., Bio/Technology 8, 217-221 (1990)--.

At page 15, line 31, after "5'-GGCTCTCTTCTGTTCCATGGCAGATGAAGC-3'" insert --(SEQ ID NO:3)--.

At page 15, line 32, please delete "herefrom" and substitute therefor --therefrom--.

At page 15, line 35, please insert --,-- after "fragment".

At page 15, line 36, please insert --,-- after "present".

At page 15, line 37, please insert --,-- after "plasmid".

At page 16, line 12, please insert --,-- after "gene".

At page 16, lines 22 to 23, please inset --,-- after "Thereafter".

At page 16, line 26, please insert --,-- after "rpm)".

At page 16, line 27, please delete "example" and substitute therefor --Example--.

At page 16, line 33, please delete "figure" and substitute therefor --Figure--.

At page 17, line 1, please insert --,-- after "onion".

At page 17, line 6, please insert --,-- after "example".

At page 17, lines 9 to 10, please delete "protocol. The" and substitute --protocol: the--.

At page 17, line 14, please insert --,-- after "20%".

At page 17, line 16, please insert --,-- after "80%".

At page 17, line 19, please insert --was-- between "solution" and "clarified".

At page 17, line 22, please insert --,-- after "5.6".

At page 17, line 28, please delete second occurrence of "-".

At page 17, line 29, please delete "Ph" and substitute therefor --pH--.

At page 17, line 33, please insert --with-- between "6.5," and "1%".

At page 17, line 36, please delete "figure" and substitute therefor --Figure--.

At page 18, line 1, please insert --,-- after "sucrose".

At page 18, line 3, please delete "figure" and substitute therefor --Figure--.

At page 18, lines 8 to 9, please delete "examples" and substitute therefore --Examples--.

At page 18, line 9, please insert --,-- after "2".

At page 18, line 9, please delete "hereby".

At page 18, line 14, please insert --,-- after "species".

At page 18, line 16, please insert --,-- after "technology".

At page 18, line 16, please delete "example" and substitute therefor --Example--.

At page 18, line 22, please insert --,-- after "L.)".

At page 18, line 25, please insert --,- after "in".

At page 18, line 26, please insert --,-- after "instance".

At page 18, line 30, please insert --,-- after "in".

At page 18, line 30, please insert --,-- after "instance".

At page 19, line 17, please insert --,-- after "barley".

At page 19, line 18, please insert --,-- after "Introduction".

At page 19, line 22, please insert --,-- after the first occurrence of "sucrose".

At page 19, line 32, please delete "the" (second occurrence).

At page 19, line 33, please insert --,-- after "al.".

At page 20, line 18, please insert --,-- after "dye".

At page 20, line 26, please insert --,-- after "buffer".

At page 20, line 32, please delete "resource" and substitute therefor --Resource--.

At page 20, line 35, please delete "eluated" and substitute therefor --eluted--.

At page 21, lines 32 to 33, please delete "(fig. 5A)" and substitute therefor --(Fig. 5)--.

At page 22, line 16, please insert --CA-- between "Sunnyvale," and "USA)".

At page 22, line 21, please delete ", this" after "purification".

At page 22, line 25, please insert --see-- between "(" and "table".

At page 22, line 25, please delete "table" and substitute therefor --Table--.

At page 22, line 28, please insert --,-- after "column".

At page 22, line 32, please insert --of-- before "6".

At page 22, line 22, please insert --,-- after "chromatography".

At page 22, line 34, please insert --see-- between "(" and "table".

At page 22, line 34, please delete "table" and substitute therefor --Table--.

At page 22, line 36, please delete "(supra)" and substitute therefor --supra--.

At page 23, line 5, please delete "fig. 5B" and substitute therefor --Fig. 6--.

At page 23, line 14, please insert --,-- after "electrophoresis".

At page 23, line 18, please delete "fig. 5" and substitute therefor --Figs. 5 and 6--.

At page 23, line 20, please delete "fig. 6A" and substitute therefor --Fig. 7--.

At page 23, line 20, please delete "fig. 6B" and substitute therefor --Fig. 8--.

At page 23, line 29, please delete "," after "680-685".

At page 24, line 3, please delete "a" after "had".

At page 24, line 10, please delete "very" after "display".

At page 24, lines 10 to 11, please delete "respect of" after "in".

At page 24, line 16, please insert --- after "sequence".

At page 24, line 35, please delete "fig. 7" and substitute therefor --Fig. 10--.

At page 25, line 1, please insert --- after "probe".

At page 25, line 9, after "GGCCTGCAGGTACCACATGTT(C/T)TA(C/T)CA(A/G)TA-(C/T)AA(C/T)CC" insert--(SEQ ID NO:4); and--

At page 25, line 10, after "CCACGTCTAGAGCTCTC(A/G)TC(A/G)TACCA(A/C/G)GC-(C/G)GTCAT" insert--(SEQ ID NO:5)--

At page 25, line 19, please insert --- after "library".

At page 25, line 20, please delete "as".

At page 25, line 21, please delete "under 5," and substitute therefor --of paragraph 5 above--.

At page 26, line 5, please delete "," after "451-469".

At page 26, line 5, please delete "1978" and substitute therefor --(1978)--.

At page 27, line 2, please delete "fig. 7" and substitute therefor --Fig. 10--.

At page 27, line 4, please delete "fig. 8" and substitute therefor --Fig. 11--.

At page 27, line 4, after "fig. 8" insert--(SEQ ID NO:1)--

At page 27, line 13, after "sequence" insert--(SEQ ID NO:2)--

At page 27, line 14, please delete "fig. 8" and substitute therefor --Fig. 11--.

At page 27, line 36, please delete "fig. 9" and substitute therefor --Fig. 12--.

At page 27, lines 36 to 37, please delete "fig. 10" and substitute therefor --Fig. 13--.

At page 28, line 6, after "Domains I" insert--(SEQ ID NO:6)--

At page 28, line 6, after "IV" insert--(SEQ ID NO:7)--

At page 28, line 7, after "II" insert--(SEQ ID NO:8)--

At page 28, line 8, after "III" insert--(SEQ ID NO:9)--

At page 28, line 8, after "V" insert--(SEQ ID NO:10)--

At page 28, line 12, please delete "fig. 10" and substitute therefor --Fig. 13--.